#6

SEQUENCE LISTING

<110> RIKEN

AJINOMOTO CO., INC.

<120> A METHOD FOR INCREASING STRESS-RESISTANCE TO A PLANT

<130> 204936US-3524-10-0

<150> JP 2001-72650

<151> 2001-03-14

<160> 15

<170> PatentIn Ver. 2.0

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<213> Arabidopsis thaliana

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Ile Thr Lys Pro Ser Leu Pro Ser Val Gln Asp Ser Asp Arg Ala Tyr
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Val Thr Phe Leu Ala Gly Asn Gly Asp Tyr Val Lys Gly Val Val Gly
35 40 45

Leu Ala Lys Gly Leu Arg Lys Val Lys Ser Ala Tyr Pro Leu Val Val
50 55 60

Ala Met Leu Pro Asp Val Pro Glu Glu His Arg Arg Ile Leu Val Asp
65 70 75 80

Gln Gly Cys Ile Val Arg Glu Ile Glu Pro Val Tyr Pro Pro Glu Asn
85 90 95

Gln Thr Gln Phe Ala Met Ala Tyr Tyr Val Ile Asn Tyr Ser Lys Leu
100 105 110

Arg Ile Trp Lys Phe Val Glu Tyr Ser Lys Met Ile Tyr Leu Asp Gly
115 120 125

Asp Ile Gln Val Tyr Glu Asn Ile Asp His Leu Phe Asp Leu Pro Asp
130 135 140

Gly Tyr Leu Tyr Ala Val Met Asp Cys Phe Cys Glu Lys Thr Trp Ser
145 150 155 160

His Thr Pro Gln Tyr Lys Ile Arg Tyr Cys Gln Gln Cys Pro Asp Lys
165 170 175

Val Gln Trp Pro Lys Ala Glu Leu Gly Glu Pro Pro Ala Leu Tyr Phe
180 185 190

Asn Ala Gly Met Phe Leu Tyr Glu Pro Asn Leu Glu Thr Tyr Glu Asp

195 200 205

Leu Leu Arg Thr Leu Lys Ile Thr Pro Pro Thr Pro Phe Ala Glu Gln
210 215 220

Asp Phe Leu Asn Met Tyr Phe Lys Lys Ile Tyr Lys Pro Ile Pro Leu
225 230 235 240

Val Tyr Asn Leu Val Leu Ala Met Leu Trp Arg His Pro Glu Asn Val
245 250 255

Glu Leu Gly Lys Val Lys Val Val His Tyr Cys Ala Ala Gly Ser Lys
260 265 270

Pro Trp Arg Tyr Thr Gly Lys Glu Ala Asn Met Glu Arg Glu Asp Ile
275 280 285

Lys Met Leu Val Lys Lys Trp Trp Asp Ile Tyr Asp Asp Glu Ser Leu
290 295 300

Asp Tyr Lys Lys Pro Val Thr Val Val Asp Thr Glu Val Asp Leu Val
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Asn Leu Lys Pro Phe Ile Thr Ala Leu Thr Glu Ala Gly Arg Leu Asn
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Tyr Val Thr Ala Pro Ser Ala Ala
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<212> PRT

<213> Arabidopsis thaliana

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35 40 45

Lys Ser Lys Tyr Pro Leu Val Val Ala Val Leu Pro Asp Val Pro Glu
50 55 60

Asp His Arg Lys Gln Leu Val Asp Gln Gly Cys Val Val Lys Glu Ile
65 70 75 80

Glu Pro Val Tyr Pro Pro Glu Asn Gln Thr Glu Phe Ala Met Ala Tyr
85 90 95

Tyr Val Ile Asn Tyr Ser Lys Leu Arg Ile Trp Glu Phe Val Glu Tyr
100 105 110

Asn Lys Met Ile Tyr Leu Asp Gly Asp Ile Gln Val Phe Asp Asn Ile

115 120 125

Asp His Leu Phe Asp Leu Pro Asn Gly Gln Phe Tyr Ala Val Met Asp
130 135 140

Cys Phe Cys Glu Lys Thr Trp Ser His Ser Pro Gln Tyr Lys Ile Gly
145 150 155 160

Tyr Cys Gln Gln Cys Pro Asp Lys Val Thr Trp Pro Glu Ala Lys Leu
165 170 175

Gly Pro Lys Pro Pro Leu Tyr Phe Asn Ala Gly Met Phe Val Tyr Glu
180 185 190

Pro Asn Leu Ser Thr Tyr His Asn Leu Leu Glu Thr Val Lys Ile Val
195 200 205

Pro Pro Thr Leu Phe Ala Glu Gln Asp Phe Leu Asn Met Tyr Phe Lys
210 215 220

Asp Ile Tyr Lys Pro Ile Pro Pro Val Tyr Asn Leu Val Leu Ala Met
225 230 235 240

Leu Trp Arg His Pro Glu Asn Ile Glu Leu Asp Gln Val Lys Val Val
245 250 255

His Tyr Cys Ala Ala Gly Ala Lys Pro Trp Arg Phe Thr Gly Glu Glu
260 265 270

Glu Asn Met Asp Arg Glu Asp Ile Lys Met Leu Val Lys Lys Trp Trp
275 280 285

Asp Ile Tyr Asn Asp Glu Ser Leu Asp Tyr Lys Asn Val Val Ile Gly
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caaggatgca tcgtccgtga aatcgaaccc gtttacccac ccgagaacca aactcagttc 300

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ttcgctgaac aggatttttt gaacatgtac tttaagaaaa tctacaagcc gattccttta 720

gtgtacaatc tcgtccttgc gatgttatgg cgtcacccag aaaatgtaga gcttggaaaa 780

gtcaaggtgg ttcactactg tgcagcgggt tcgaagccgt ggagatacac agggaaagaa 840

gcgaacatgg agagggaaga tataaaaatg ttagtgaaaa aatggtggga catttacgac 900

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aatctgaagc cgttcatcac cgctcttact gaagctggcc ggctcaacta cgtgaccgca 1020

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SEQUENCE LISTING

<110> TAJI, Teruaki
SHINOZAKI, Kazuo
OHSUMI, Chieko

<120> A METHOD FOR INCREASING STRESS-RESISTANCE TO A PLANT

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<140> 09/810,506

<141> 2001-03-19

<150> JP2001-072650

<151> 2001-03-14

<160> 15

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Ile Thr Lys Pro Ser Leu Pro Ser Val Gln Asp Ser Asp Arg Ala Tyr
20 25 30

Val Thr Phe Leu Ala Gly Asn Gly Asp Tyr Val Lys Gly Val Val Gly
35 40 45

Leu Ala Lys Gly Leu Arg Lys Val Lys Ser Ala Tyr Pro Leu Val Val
50 55 60

Ala Met Leu Pro Asp Val Pro Glu Glu His Arg Arg Ile Leu Val Asp
65 70 75 80

Gln Gly Cys Ile Val Arg Glu Ile Glu Pro Val Tyr Pro Pro Glu Asn
85 90 95

Gln Thr Gln Phe Ala Met Ala Tyr Tyr Val Ile Asn Tyr Ser Lys Leu
100 105 110

Arg Ile Trp Lys Phe Val Glu Tyr Ser Lys Met Ile Tyr Leu Asp Gly
115 120 125

Asp Ile Gln Val Tyr Glu Asn Ile Asp His Leu Phe Asp Leu Pro Asp
130 135 140

Gly Tyr Leu Tyr Ala Val Met Asp Cys Phe Cys Glu Lys Thr Trp Ser
145 150 155 160

His Thr Pro Gln Tyr Lys Ile Arg Tyr Cys Gln Gln Cys Pro Asp Lys
165 170 175

Val Gln Trp Pro Lys Ala Glu Leu Gly Glu Pro Pro Ala Leu Tyr Phe
180 185 190

Asn Ala Gly Met Phe Leu Tyr Glu Pro Asn Leu Glu Thr Tyr Glu Asp
195 200 205

Leu Leu Arg Thr Leu Lys Ile Thr Pro Pro Thr Pro Phe Ala Glu Gln
210 215 220

Asp Phe Leu Asn Met Tyr Phe Lys Lys Ile Tyr Lys Pro Ile Pro Leu
225 230 235 240

Val Tyr Asn Leu Val Leu Ala Met Leu Trp Arg His Pro Glu Asn Val
245 250 255

Glu Leu Gly Lys Val Lys Val Val His Tyr Cys Ala Ala Gly Ser Lys
260 265 270

Pro Trp Arg Tyr Thr Gly Lys Glu Ala Asn Met Glu Arg Glu Asp Ile
275 280 285

Lys Met Leu Val Lys Lys Trp Trp Asp Ile Tyr Asp Asp Glu Ser Leu
290 295 300

Asp Tyr Lys Lys Pro Val Thr Val Val Asp Thr Glu Val Asp Leu Val
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Tyr Val Thr Ala Pro Ser Ala Ala
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20 25 30

Asp Tyr Val Lys Gly Val Val Gly Leu Ala Lys Gly Leu Arg Lys Ala
35 40 45

Lys Ser Lys Tyr Pro Leu Val Val Ala Val Leu Pro Asp Val Pro Glu
50 55 60

Asp His Arg Lys Gln Leu Val Asp Gln Gly Cys Val Val Lys Glu Ile
65 70 75 80

Glu Pro Val Tyr Pro Pro Glu Asn Gln Thr Glu Phe Ala Met Ala Tyr
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Tyr Val Ile Asn Tyr Ser Lys Leu Arg Ile Trp Glu Phe Val Glu Tyr
100 105 110

Asn Lys Met Ile Tyr Leu Asp Gly Asp Ile Gln Val Phe Asp Asn Ile
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Asp His Leu Phe Asp Leu Pro Asn Gly Gln Phe Tyr Ala Val Met Asp
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Cys Phe Cys Glu Lys Thr Trp Ser His Ser Pro Gln Tyr Lys Ile Gly
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Tyr Cys Gln Gln Cys Pro Asp Lys Val Thr Trp Pro Glu Ala Lys Leu
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Gly Pro Lys Pro Pro Leu Tyr Phe Asn Ala Gly Met Phe Val Tyr Glu
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Pro Pro Thr Leu Phe Ala Glu Gln Asp Phe Leu Asn Met Tyr Phe Lys
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Asp Ile Tyr Lys Pro Ile Pro Pro Val Tyr Asn Leu Val Leu Ala Met
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Leu Trp Arg His Pro Glu Asn Ile Glu Leu Asp Gln Val Lys Val Val
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His Tyr Cys Ala Ala Gly Ala Lys Pro Trp Arg Phe Thr Gly Glu Glu
260 265 270

Glu Asn Met Asp Arg Glu Asp Ile Lys Met Leu Val Lys Lys Trp Trp
275 280 285

Asp Ile Tyr Asn Asp Glu Ser Leu Asp Tyr Lys Asn Val Val Ile Gly
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Asp Ser His Lys Lys Gln Gln Thr Leu Gln Gln Phe Ile Glu Ala Leu
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Ser Glu Ala Gly Ala Leu Gln Tyr Val Lys Ala Pro Ser Ala Ala
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ccactcgtag tagcgatgtt acccgacgtc ccggaggaac accgtcgtat acttgtggat 240

caaggatgca tcgtccgtga aatcgaaccc gtttacccac ccgagaacca aactcagttc 300

gccatggctt attacgtcat caactactct aaactccgta tctggaagtt tgtggagtat 360

agtaaaatga tatatttaga tggagacatt caagtttacg aaaacatcga tcacttgttt 420

gacctaccag atggctattt gtacgcggtg atggattgtt tctgtgagaa aacatggagt 480

cacacgccgc aatacaagat cagatattgc caacaatgcc ccgacaaagt ccagtggcca 540

aaagcggagc ttggagagcc accggctctt tacttcaacg ccggaatgtt cttgtacgag 600

cctaacctcg agacttacga ggatctacta cgaacactta aaatcactcc tccgactcct 660

ttcgctgaac aggatttttt gaacatgtac tttaagaaaa tctacaagcc gattccttta 720

gtgtacaatc tcgtccttgc gatgttatgg cgtcacccag aaaatgtaga gcttggaaaa 780

gtcaaggtgg ttcactactg tgcagcgggt tcgaagccgt ggagatacac agggaaagaa 840

gcgaacatgg agagggaaga tataaaaatg ttagtgaaaa aatggtggga catttacgac 900

gacgaatcct tggattacaa gaaacctgtt accgttgtgg acacagaggt cgatctcgtg 960

aatctgaagc cgttcatcac cgctcttact gaagctggcc ggctcaacta cgtgaccgca 1020

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